**Environmental Occupational Health and Safety (EOHS) Management Plan**

**A blue and white logo

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**Electric Vehicle (EV) Recovery, Transport, and Storage Operations**

A car on a tow truck

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Prepared by the Automotive Retailers Association for:

**[This Company] Date: [Insert Date]**

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**1. Introduction**

This Environmental Occupational Health and Safety (EOHS) Management Plan is designed to guide businesses involved in the recovery, transportation, storage, and disposal of electric vehicles (EVs) and hybrid vehicles. With the increasing number of EVs on the road, understanding their unique hazards is essential for worker safety, environmental protection, and regulatory compliance.

**2. Policy Statement**

**[This Company]** is committed to safeguarding the health and safety of its employees, subcontractors, and the public, and to minimizing environmental impacts arising from EV recovery operations. Our goal is zero incidents through proactive hazard management, effective communication, and continuous improvement.

**3. Purpose and Scope**

This plan outlines standardized procedures for:

* Scene assessment and hazard identification
* Communication with dispatch and emergency services
* Use of specialized PPE and recovery equipment
* Safe handling of EVs during recovery and storage
* Environmental protection, spill management, and cleanup
* Subcontractor engagement and qualification

**4. Communication Protocols**

Effective communication is critical to ensuring the safe recovery, transport, and storage of electric vehicles (EVs). It enables tow operators, dispatchers, and emergency responders to exchange vital information, assess hazards quickly, and adapt procedures as conditions change. Proper communication reduces the risk of injury, environmental contamination, and equipment damage.

**[This company]** is committed to implementing strong communication practices at all stages of EV recovery operations, beginning with dispatch, continuing through coordination with emergency personnel, and extending into post-recovery storage, reporting and disposal.

**4.1 Communication with Dispatch**

Dispatchers are the first link in the chain of safety for EV recoveries. Clear, structured information gathering and timely communication help prepare tow operators for hazards they may encounter on scene. Dispatchers must:

* **Identify Vehicle Type:** Confirm whether the vehicle is electric (EV), hybrid (HEV/PHEV), or internal combustion engine (ICE).
* **Assess Scene Conditions:** Ask about signs of fire, smoke, visible damage, submersion, or unusual vehicle behavior.
* **Capture Location Details:** Document if the vehicle is on-road, off-road, submerged, on a slope, or in a confined space.
* **Obtain Key Details:** Confirm if the keys are present, whether emergency services are on scene, and if any active hazards (e.g., leaking fluids, fire) have been observed.

Dispatchers must use a **standardized checklist**, following SAE J2990 guidelines wherever possible, to record critical information. This ensures operators are briefed on potential **high-voltage hazards**, **thermal runaway risks**, or **submersion issues** before arrival.

Tow operators should verify all dispatch information upon arrival, maintaining an active feedback loop throughout the recovery process.

**4.2 Communication with Emergency Personnel**

Tow operators must work closely with fire, police, and other emergency services to manage the risks posed by damaged EVs. Given the complexity of EV incidents, it is essential to collaborate in a way that ensures everyone's safety.

Upon arriving at the scene, tow operators must:

* **Identify the Incident Commander:** Determine who is leading the emergency response and coordinate all communication through them.
* **Share Initial Assessments:** Relay dispatch information and observations about the vehicle's type, damage, and any detected hazards such as fire, smoke, unusual smells (e.g., electrolyte odors), or exposed high-voltage systems.
* **Ask Critical Questions:** Confirm whether thermal runaway is suspected, if the battery system is compromised, or if specialized fire suppression is needed.
* **Clarify Roles:** Ensure a clear understanding of responsibilities for hazard control, recovery operations, and managing public safety.

Tow operators must remember that while emergency responders are experts in scene management, their experience with EVs can vary. Operators should assist by sharing vehicle-specific risks and recovery strategies.

When fire, smoke, or chemical hazards are suspected, tow operators must verify whether emergency crews have **lithium-ion-specific fire suppression** tools available or need assistance with containment and hazard isolation.

**4.3 Continuous Scene Communication**

Communication must remain dynamic and responsive throughout the operation. Key practices include:

* **Maintaining Updates:** Regularly update emergency services with new hazards or scene changes.
* **Documenting Changes:** Keep a log of evolving conditions (e.g., smoke starting, leaks appearing) and record decisions like equipment use, scene evacuation, or emergency procedures triggered.
* **Designating a Communication Lead:** For complex recoveries, assign a team member to act as the primary point of contact with emergency personnel to prevent confusion.

**4.4 Building Long-Term Relationships**

To enhance scene safety and coordination, **[this company]** encourages:

* Participating in joint training exercises with local emergency services.
* Attending OHS toolbox talks focused on EV incident management.
* Establishing direct contact networks with local fire departments and hazmat teams for quicker support during incidents.

**5. Essential Equipment and PPE for EV Recovery, Transport, and Storage**

Electric vehicle (EV) recoveries introduce unique hazards, including high-voltage electrical systems, the risk of thermal runaway, chemical exposure from battery leaks, and the potential for fire. Proper equipment and personal protective equipment (PPE) are critical to protecting tow operators, emergency responders, and the environment.

**[This company]** requires all personnel engaged in EV recovery, transport, or storage to be equipped with specialized tools and appropriate PPE suited to the level of risk assessed at each incident.

**5.1 Scene Risk Assessment and Equipment Selection**

Before beginning any recovery operation, operators must conduct a **scene risk assessment** to identify:

* The presence of high-voltage components or exposed wiring
* Signs of thermal runaway, including heat, smoke, or unusual noises
* Chemical spills from leaking battery electrolytes
* Structural instability or vehicle submersion risks

The outcome of this assessment determines the **minimum required PPE** and **specialized equipment** necessary for safe operation.

**5.2 Personal Protective Equipment (PPE) Requirements**

PPE must be selected based on the type of hazard present, escalating with the risk level (Basic, Intermediate, or High Risk).

| **Risk Level** | **Recommended PPE** |
| --- | --- |
| **Basic Risk** | - High-visibility vests  - Safety shoes with reinforced toes  - Eye protection (safety goggles)  - Lightweight work gloves |
| **Intermediate Risk** | - All Basic PPE, plus:  - Flame-resistant (FR-rated) clothing  - Chemical-resistant gloves  - Respirators with appropriate filters (fume/particulate protection)  - Electrical insulating gloves  - Hard hats with integrated visors |
| **High Risk** | - All Intermediate PPE, plus:  - Full-face respirators or SCBA (self-contained breathing apparatus)  - Multi-layer flame-resistant suits  - Heat-resistant gloves  - Electrical insulating boots  - Chemical splash-resistant aprons or full-body suits  - Intrinsically safe communication devices |

**5.3 Safety Equipment Requirements**

In addition to personal PPE, operators must utilize collective and scene safety equipment to control environmental and operational hazards. Required safety equipment includes:

| **Equipment Type** | **Examples** |
| --- | --- |
| **Scene Safety Equipment** | - High-visibility warning tape, signs, and barriers  - Fire blankets for thermal containment  - Spill containment kits  - Emergency lighting or portable floodlights |
| **Electrical Safety Equipment** | - Voltage detectors (CAT III rated)  - Electrical insulating tools  - Grounding and bonding equipment to safely discharge static |
| **Thermal Monitoring** | - Thermal imaging cameras to detect battery hotspots |
| **Containment and Suppression Equipment** | - Portable lithium-ion-specific fire extinguishers (e.g., F500 EA)  - Battery containment pods or immersion bins for high-risk batteries  - Non-conductive towing straps and chains |
| **Environmental Protection** | - Portable spill kits for chemical leaks  - Air monitors for toxic gas detection  - Emergency showers and eyewash stations (if available at facility) |

**5.4 Fire Extinguisher Selection**

Choosing the correct fire suppression method for EV battery incidents is critical. Traditional fire extinguishers may not be effective in preventing re-ignition after thermal runaway events.

* **Preferred Method:** Application of large volumes of water (minimum 2,500–10,000 liters) for cooling lithium-ion batteries
* **Specialized Extinguishers:** Lithium-ion-specific extinguishers (such as F500 EA encapsulating agents)
* **Class D Extinguishers:** May be appropriate for pure lithium-metal fires, but not ideal for lithium-ion fires
* **ABC Extinguishers:** Can suppress small component fires (e.g., upholstery, plastics) but do not address battery thermal runaway

Operators must recognize that lithium-ion battery fires differ from conventional fires and require targeted cooling strategies rather than simple flame suppression.

**5.5 Towing and Recovery Equipment**

Safe recovery of EVs requires the use of non-conductive, structurally appropriate equipment:

| **Equipment Type** | **Examples** |
| --- | --- |
| **Basic Recovery** | - Flatbed tow trucks  - Wheel lifts for undamaged vehicles  - Non-conductive tow straps |
| **Intermediate Recovery** | - Winches with non-conductive lines  - Battery transport pods or containers  - Thermal imaging cameras |
| **High-Risk Recovery** | - Fire-resistant tarps or blankets  - Hazmat kits for chemical spills  - Rotator trucks or cranes for unstable vehicles |

**6. Fire Suppression Strategies for EV Recovery Operations**

The fire risks associated with electric vehicles (EVs) are substantially different from those involving traditional internal combustion engine (ICE) vehicles. The presence of high-voltage battery packs introduces unique hazards, including **thermal runaway events**, **toxic gas emissions**, and the **potential for re-ignition hours or days after an initial incident**.

**[This company]** recognizes the critical importance of selecting appropriate fire suppression techniques tailored to lithium-ion battery fires and has established the following protocols for fire mitigation during EV recovery, transport, and storage.

**6.1 Understanding Lithium-Ion Battery Fires**

Lithium-ion battery fires are classified as **Class B fires** (flammable liquids and gases) but exhibit unique behaviors:

* **Thermal Runaway:** Once initiated, thermal runaway is self-sustaining. The battery generates its own oxygen, making traditional extinguishing methods ineffective.
* **Delayed Ignition:** Batteries subjected to damage, impact, or thermal stress may enter a dormant unstable state and ignite later.
* **Toxic Emissions:** Combustion can release toxic gases, including hydrogen fluoride (HF), carbon monoxide (CO), and volatile organic compounds (VOCs).

Operators must treat any EV involved in a collision, fire, or thermal event as a **high-risk vehicle** requiring enhanced monitoring and special handling.

**6.2 Preferred Fire Suppression Method: Water Application**

The most effective method for controlling lithium-ion battery fires is **continuous application of large volumes of water** for cooling. Water acts to:

* Lower the temperature of the battery pack below the threshold needed for sustained combustion
* Delay or prevent cell-to-cell propagation of thermal runaway
* Suppress secondary component fires (interior materials, plastics, upholstery)

**Water Application Guidelines:**

* **Minimum Volume:** 2,500 to 10,000 liters (660 to 2,600 gallons), depending on the size and severity of the fire.
* **Continuous Cooling:** Water must be applied directly to the battery area, if accessible, and sustained for extended periods to ensure internal battery pack temperatures are reduced.
* **Monitoring:** Thermal imaging cameras must be used to confirm temperature stabilization before ceasing water application.

If direct access to the battery is impossible due to structural barriers, operators must continue cooling the general battery area while maintaining safe standoff distances.

**6.3 Specialized Fire Suppression Agents**

Where large-volume water application is not feasible (e.g., rural recoveries, limited water supply), specialized lithium-ion fire suppression agents should be deployed:

* **Encapsulating Agents:** Such as F-500 EA or similar, designed to cool batteries and encapsulate flammable vapors.
* **Aqueous Vermiculite Dispersion (AVD):** Specialized extinguishing agents for lithium-ion battery packs.

Specialized extinguishers must be deployed early and in large enough quantities to control incipient thermal events. Operators should recognize that even these agents **cannot always stop** full thermal runaway once initiated but may reduce heat and propagation risks.

**6.4 Limitations of Conventional Fire Extinguishers**

Traditional fire extinguishers have limited effectiveness against EV battery fires:

| **Extinguisher Type** | **Effectiveness for EV Fires** |
| --- | --- |
| **ABC Extinguishers** | May suppress minor surface fires but ineffective against battery thermal runaway. |
| **Class D Extinguishers** | Effective for lithium metal fires (not lithium-ion). Limited usefulness for EVs. |
| **CO2 Extinguishers** | Ineffective. Batteries generate their own oxygen. |
| **Water Extinguishers** | Effective if used in sufficient volumes for cooling. |

**7. Hazard Identification and Risk Assessment**

Proper hazard identification and risk assessment are critical elements in ensuring the safety of personnel and the protection of the environment during the recovery, transport, and storage of electric vehicles (EVs). EV incidents often present complex, multi-faceted hazards that differ significantly from those found in traditional vehicle recoveries.

This company will ensure that hazard identification and risk assessments are completed systematically for each incident scene, prior to the commencement of any recovery operation.

**7.1 General Principles**

* Hazard identification must occur **at the earliest possible stage**: ideally during dispatch intake and verified upon arrival at the scene.
* A **dynamic risk assessment** approach must be used: recognizing that conditions can evolve rapidly during an incident.
* Tow operators must document observations and reassess risks **continuously** throughout the recovery and transport process.
* High-risk scenarios demand the **assignment of a Site Scene Coordinator** to oversee safety decisions and scene management.

**7.2 Key Hazards Associated with EVs**

EVs introduce a combination of **chemical**, **electrical**, **thermal**, and **environmental** hazards that require specialized recognition and control measures.

| **Hazard Type** | **Specific Examples** | **Potential Risks** |
| --- | --- | --- |
| **Chemical** | Battery electrolyte leaks (e.g., lithium hexafluorophosphate exposure) | Skin burns, respiratory irritation, toxic gas release |
| **Electrical** | Exposed high-voltage components (>60V DC) | Arc flash, electric shock, electrocution |
| **Thermal** | Battery overheating, thermal runaway | Vehicle fires, explosion risks, flashover |
| **Environmental** | Contaminated runoff, soil or water pollution | Regulatory violations, ecological harm, costly cleanup |

**8. Safe Work Procedures**

Safe work procedures are essential to protect tow operators, subcontractors, emergency responders, and the public during the recovery, transport, and storage of electric vehicles (EVs). Due to the complexity of EV systems and the unique hazards involved, **[this company]** has established the following safe work practices to be followed at every stage of operations.

All procedures must be based on the initial scene risk assessment and adjusted dynamically based on changing conditions.

**8.1 General Safety Principles**

* Always treat damaged or disabled EVs as **potentially energized** and **unstable** until proven otherwise.
* Never assume a vehicle is powered down simply because it is silent or immobile.
* Use a **defensive approach**: prioritize personnel safety and environmental protection over expediency.
* Follow manufacturer Emergency Response Guides (ERGs) whenever available.
* Maintain continuous situational awareness: monitor for new hazards such as heat buildup, leaks, or structural shifting.

**8.2 Scene Approach and Initial Actions**

Upon arrival at an EV incident scene:

1. **Stage at a Safe Distance:**  
   Approach the scene cautiously, positioning the recovery vehicle a minimum of 15 meters (50 feet) away from the damaged EV until a full assessment is completed.
2. **Conduct a 360-Degree Scene Assessment:**  
   Walk around the incident scene if safe to do so, scanning for hazards including fire, smoke, leaking fluids, exposed wiring, unstable ground, or secondary crash risks.
3. **Identify Critical Risks:**  
   Use all senses (visual, auditory, olfactory) to detect immediate dangers. Look for warning placards, listen for unusual sounds (hissing, popping), and smell for electrolyte leaks.
4. **Establish a Safe Zone:**  
   Use cones, flags, or barrier tape to establish an exclusion zone around the vehicle, particularly if thermal or chemical risks are detected.
5. **Communicate Findings:**  
   Report your scene assessment findings to dispatch and any emergency services personnel on site.

**8.3 Vehicle Securing and Stabilization**

Before commencing recovery:

* **Disable High-Voltage Systems if Safe:**  
  Follow OEM-specific ERG instructions for disabling service disconnects or isolating high-voltage batteries.  
  **Important:** Do not attempt disabling if vehicle conditions are unstable (fire, water submersion, heavy deformation).
* **Remove Keys and Fobs:**  
  Secure the ignition keys or fobs at least 5 meters (16 feet) away from the vehicle to prevent unintentional system activation.
* **Chock Wheels and Stabilize:**  
  Prevent vehicle movement using wheel chocks or stabilization equipment, especially if located on slopes, embankments, or unstable surfaces.
* **Avoid Contact with High-Voltage Components:**  
  Do not cut, crush, or puncture orange (high-voltage) cabling or battery compartments.

**8.4 Towing and Recovery Operations**

* **Use Flatbed Recovery Where Possible:**  
  Damaged EVs must be transported on flatbeds whenever feasible to avoid additional drivetrain damage and to maintain isolation from road surfaces.
* **Secure Vehicles Properly:**  
  Use non-conductive straps, chains, or rigging points. Avoid wrapping chains or cables around battery enclosures.
* **Prevent Rolling:**  
  If vehicle damage prevents use of park modes or mechanical brakes, use supplemental securement devices.
* **Monitor Battery Temperature:**  
  If equipped with a thermal camera, scan the vehicle periodically during loading and transport to detect heat signatures that may indicate evolving thermal events.

**8.5 Special Considerations for Damaged or High-Risk Vehicles**

Vehicles involved in fire, collision near the battery, submersion, or significant deformation must be handled under **high-risk procedures**, including:

* **Isolation Storage:**  
  Transport directly to designated isolation zones, separated by a minimum of 15 meters from structures, people, and other vehicles.
* **Use of Fire Blankets or Containment Pods:**  
  Cover vehicles with fire-resistant tarps during transport and storage to contain possible flare-ups.
* **Continuous Monitoring:**  
  Document any smoke, heat, odors, or liquid discharges observed during recovery and storage.
* **Emergency Evacuation Preparedness:**  
  Be prepared to quickly evacuate the area during loading, transport, or storage if hazardous conditions suddenly develop.

**8.6 Documentation and Post-Operation Reporting**

Operators must complete the following after every EV recovery:

* **Incident Hazard Forms:**  
  Document initial scene conditions, risk levels, control measures implemented, and any observed changes during recovery.
* **Photographic Evidence:**  
  Take photos (where safe) of the initial scene, hazard conditions, and final secured load.
* **Dispatch Reports:**  
  Communicate post-recovery findings to dispatch and supervisory staff, including any recommendations for follow-up inspections or additional hazard mitigation.
* **Facility Notification:**  
  Notify receiving facilities of any damage, thermal risk, chemical spills, or pending re-ignition concerns before arrival.

**9. Emergency Response Plans**

Electric vehicle (EV) incidents can escalate rapidly due to the unique hazards associated with high-voltage systems, thermal runaway, toxic chemical release, and re-ignition potential. A structured and proactive Emergency Response Plan (ERP) ensures that tow operators, subcontractors, and site personnel can respond effectively, protect life and property, and minimize environmental impacts.

**[This company]** has developed the following emergency response protocols for EV incidents at accident scenes, during transport, and in storage facilities.

**9.1 Activation of the Emergency Response Plan**

The ERP must be immediately activated under the following conditions:

* Evidence of fire, smoke, excessive heat, or off-gassing from a damaged EV.
* Submersion of an EV in water or conductive liquids.
* Discovery of high-voltage system damage (exposed wiring, battery rupture).
* Chemical spill or leak involving battery electrolyte or other hazardous fluids.
* Significant collision or mechanical deformation involving the vehicle’s battery enclosure.

Once activated, the ERP requires immediate steps to protect personnel, isolate the hazard, and summon appropriate emergency services.

**9.2 Immediate Actions for Field Operators**

Upon identifying a developing emergency:

1. **Stop All Operations:**  
   Cease recovery, towing, or transport activities immediately.
2. **Initiate Scene Evacuation:**  
   Direct all personnel and bystanders to evacuate to a minimum safe distance of 15 meters (50 feet) or greater based on hazard severity.
3. **Establish an Incident Command Structure:**  
   If emergency services are not yet on scene, the senior tow operator assumes temporary control, initiating communications and hazard control efforts until relieved by fire, police, or hazmat teams.
4. **Communicate Emergency Details:**  
   Provide dispatch and emergency responders with detailed information regarding vehicle type, observed hazards (fire, smoke, leaks), actions already taken, and any injuries or exposures.
5. **Isolate the Vehicle:**  
   Set up barriers or cones to create an exclusion zone. Prevent access to the affected area.
6. **Deploy Suppression or Containment Measures if Safe:**  
   Use lithium-ion fire suppression agents, portable water supplies, spill containment kits, or fire blankets only if it can be done safely without personal risk.
7. **Do Not Attempt Vehicle Recovery:**  
   Recovery efforts must be suspended until emergency services have stabilized the situation and authorized safe handling.

**9.3 Coordination with Emergency Responders**

Tow operators must:

* **Identify the Incident Commander:**  
  Report to the ranking emergency officer and follow their instructions.
* **Provide Critical Information:**  
  Offer vehicle make, model, battery type, ERG references, and scene observations to assist in hazard mitigation planning.
* **Assist in Scene Safety:**  
  Support perimeter control, crowd management, and hazard communications as directed.
* **Avoid Direct Suppression Unless Trained:**  
  Fire suppression actions should only be taken if operators are trained, equipped, and can do so without endangering themselves.

**9.4 Post-Incident Recovery Authorization**

Recovery or transport of an EV must only resume after:

* The Incident Commander has declared the scene safe for recovery.
* A final hazard reassessment has been conducted by the recovery team.
* Thermal imaging scans confirm the battery has cooled to safe levels.
* Any contaminated fluids, debris, or hazardous materials have been contained or removed under the supervision of qualified personnel.

**9.5 Emergency Scenarios and Specific Protocols**

| **Emergency Type** | **Key Response Actions** |
| --- | --- |

|  |  |
| --- | --- |
| **Thermal Runaway or Fire** | Evacuate immediately, cool with water if feasible, coordinate with fire department. |

|  |  |
| --- | --- |
| **Submersion in Water** | Treat as energized until safely removed; avoid contact; await specialized recovery assistance if required. |

|  |  |
| --- | --- |
| **Battery Rupture and Chemical Spill** | Isolate spill, deploy neutralizing agents if available (e.g., boric acid or vinegar for electrolyte spills), evacuate area, notify environmental response teams. |

|  |  |
| --- | --- |
| **Toxic Gas Release** | Evacuate upwind of the scene; do not re-enter until cleared by hazmat team or atmospheric testing confirms safe conditions. |

**10. Subcontractor Qualifications and Management**

Subcontractors play a vital role in electric vehicle (EV) recovery operations, especially during complex recoveries, large-scale incidents, or when specialized equipment is required.  
Because subcontractor actions directly affect [this company’s] environmental, occupational health, and safety (EOHS) performance, rigorous qualification, onboarding, and oversight processes are essential.

This company is committed to ensuring that all subcontractors meet or exceed our safety, environmental, and operational standards.

**10.1 Subcontractor Qualification Requirements**

Before engaging any subcontractor for EV-related recovery, transport, or storage operations, the following minimum qualifications must be verified:

* **WorkSafeBC Clearance Letter:**  
  Subcontractors must provide a valid clearance letter confirming active workers' compensation coverage and compliance with occupational health and safety regulations.
* **Insurance Verification:**  
  Subcontractors must carry appropriate general liability, environmental liability, and automobile insurance coverage, with proof of coverage submitted annually.
* **Training Certification:**  
  Subcontractors must demonstrate successful completion of recognized EV hazard awareness training, including battery-specific risks, fire suppression strategies, and spill management.
* **Equipment Standards:**  
  Subcontractors must operate equipment suitable for EV recoveries, including insulated tools, non-conductive rigging, spill containment kits, and proper PPE.
* **Environmental Compliance History:**  
  Subcontractors must disclose any environmental violations, regulatory citations, or serious incidents within the past five (5) years as part of the prequalification process.

**10.2 Subcontractor Onboarding and Orientation**

All subcontractors working under this company's control must complete a site - or project-specific onboarding process that includes:

* Review of this company’s **EOHS Management Plan** and emergency response protocols.
* Instruction on **scene communication protocols** and **reporting requirements**.
* Review of **hazard identification expectations** and **risk tiering** specific to EV recoveries.
* Clarification of **authority on scene**: subcontractors must recognize the designated Site Scene Coordinator’s authority in safety-related decisions.

Completion of onboarding must be documented and maintained in company records for audit and compliance purposes.

**10.3 On-Scene Subcontractor Responsibilities**

While performing EV recovery work under this company’s operations, subcontractors must:

* **Follow All Safety and Environmental Procedures:**  
  Adhere to risk assessments, PPE requirements, and safe work practices outlined in this plan.
* **Report Hazards and Incidents Immediately:**  
  Notify supervisors of new hazards, near-misses, injuries, chemical spills, or equipment failures without delay.
* **Participate in Safety Briefings:**  
  Attend on-scene hazard reviews and briefings prior to recovery commencement, especially in high-risk or multi-vehicle recoveries.
* **Maintain Proper Documentation:**  
  Complete hazard checklists, incident reports, and any required regulatory documentation as directed by this company.
* **Refuse Unsafe Work:**  
  Subcontractors are empowered — and expected — to stop work and report if conditions are deemed unsafe, or if tasks requested exceed their training or equipment capabilities.

**10.4 Subcontractor Monitoring and Oversight**

This company will monitor subcontractor safety and environmental performance through:

* **Field Inspections:**  
  Supervisors or Site Scene Coordinators will conduct periodic inspections of subcontractor activities to verify compliance with the EOHS Plan and safe work practices.
* **Performance Reviews:**  
  Following completion of recovery activities, subcontractor performance will be evaluated for adherence to safety protocols, professionalism, and incident response.
* **Corrective Actions:**  
  Where deficiencies are noted (e.g., failure to wear required PPE, non-compliance with containment procedures), immediate corrective action will be required.  
  Repeated or serious violations may result in suspension or termination of subcontractor engagement.

**10.5 Subcontractor Contracts and Agreements**

All subcontractors must enter into formal written agreements that include:

* Acknowledgment of this company's EOHS policies and recovery procedures.
* Agreement to comply with all safety, health, and environmental standards applicable to EV recovery work.
* Clear delineation of roles, responsibilities, and authority on incident scenes.
* Provisions for insurance coverage, incident reporting, and indemnity clauses.

Contracts must be reviewed annually and updated as needed to reflect changes in regulatory requirements, industry standards, or company policies.

**11. Monitoring, Compliance, and Continuous Improvement**

An effective Environmental Occupational Health and Safety (EOHS) Management Plan must be a living document - continuously tested, measured, and improved.  
**[This company]** is committed to ongoing monitoring of operations, proactive compliance verification, and structured continuous improvement to strengthen EV recovery safety and environmental stewardship.

Through systematic evaluation and responsive corrective action, we aim to prevent incidents, protect workers, safeguard the environment, and lead industry best practices.

**11.1 Monitoring of Field Operations**

Field monitoring ensures that safe work procedures, hazard controls, and environmental protection measures are being properly implemented during EV recoveries, transports, and storage activities.

**Monitoring Activities Include:**

* **Scene Safety Inspections:**  
  Supervisors, designated safety leads, or Site Scene Coordinators will periodically inspect active recovery sites to verify adherence to scene safety protocols, PPE requirements, hazard controls, and communication procedures.
* **Equipment and PPE Checks:**  
  Regular spot checks to ensure that required equipment (thermal imaging, spill kits, fire suppression agents) and personal protective equipment are present, in good condition, and properly used.
* **Subcontractor Compliance Audits:**  
  Periodic audits of subcontractors’ field activities to ensure compliance with training, documentation, and hazard control standards.
* **Storage Area Inspections:**  
  Monitoring of isolated storage areas for high-risk EVs to verify appropriate containment, thermal monitoring, fire separation distances, and signage.
* **Post-Recovery Reviews:**  
  Review of recovery operation reports, photos, and incident records to identify procedural gaps or unaddressed hazards.

**11.2 Compliance Verification**

Compliance with this EOHS Management Plan, applicable regulatory requirements, and manufacturer Emergency Response Guides (ERGs) will be verified through:

* **Internal Audits:**  
  Scheduled reviews of operational records, training certificates, subcontractor contracts, incident logs, and monitoring reports.
* **Corrective Action Tracking:**  
  Documentation of identified deficiencies and corresponding corrective actions, with assigned responsibilities and target completion dates.
* **Regulatory Compliance Checks:**  
  Confirming that environmental spill reporting, waste disposal, incident documentation, and WorkSafeBC requirements are being met consistently.
* **Third-Party Inspections (if required):**  
  Engaging external auditors or consultants to provide independent evaluation of compliance practices when deemed necessary.

**11.3 Incident Reporting and Investigation**

All incidents, near misses, and hazardous conditions encountered during EV operations must be reported immediately and thoroughly investigated.

**Incident Investigation Protocols:**

* **Immediate Response:**  
  Protect life, stabilize the scene, and notify emergency services if necessary.
* **Preserve Evidence:**  
  Preserve equipment, scene conditions, and digital evidence (photos, dashcams) to assist investigations.
* **Root Cause Analysis:**  
  Use a structured method (e.g., Five Whys, Fishbone Diagram) to determine underlying causes, not just symptoms.
* **Corrective and Preventative Actions:**  
  Identify practical measures to eliminate root causes and prevent recurrence.
* **Communication of Findings:**  
  Share investigation results and lessons learned with affected personnel, including refresher training where appropriate.

**11.4 Continuous Improvement Program**

**[This company]** maintains a formal Continuous Improvement Program (CIP) for its EV operations, built on the following pillars:

* **Annual EOHS Plan Reviews:**  
  Review and update the Environmental Occupational Health and Safety Management Plan at least annually, or immediately following major incidents, regulatory changes, or industry advancements.
* **Employee and Subcontractor Feedback:**  
  Encourage operators and subcontractors to submit suggestions for procedural improvements, hazard recognition tools, or equipment upgrades.
* **Lessons Learned Integration:**  
  After any serious incident, conduct a lessons-learned debrief to inform future revisions of policies, procedures, and training programs.
* **Innovation Adoption:**  
  Evaluate and implement emerging technologies, such as enhanced fire suppression agents, more advanced thermal imaging systems, or real-time environmental monitoring tools.
* **Management Commitment:**  
  Senior management shall regularly review EOHS performance metrics, allocate resources for safety improvements, and demonstrate leadership by championing safety and environmental priorities.

**11.5 Key Performance Indicators (KPIs)**

**[This company]** will track the following KPIs to measure the effectiveness of its EOHS Management Plan:

| **KPI** | **Target** |
| --- | --- |
| Number of incidents involving EVs | Zero |
| Number of regulatory citations or fines | Zero |
| Completion rate of required EV training | 100% |
| PPE compliance rate during inspections | >95% |
| Subcontractor compliance with onboarding requirements | 100% |
| Timely completion of corrective actions after audits | 100% within 30 days |

**12. Post-Recovery Inspection and Transport**

The safe handling of electric vehicles (EVs) does not end with initial recovery.  
Post-recovery inspection, monitoring during transport, and proper communication with receiving facilities are critical to preventing delayed incidents such as fire re-ignition, chemical spills, or environmental contamination.

**[This company]** has established the following procedures to ensure safe and compliant post-recovery operations.

**12.1 Post-Recovery Visual Inspection**

Immediately after loading the EV onto the recovery vehicle, a full visual inspection must be conducted to identify any evolving hazards before transport begins.

**The inspection must include:**

* **Vehicle Stability:**  
  Confirm that the vehicle is securely fastened using non-conductive rigging, with no risk of shifting during transport.
* **Signs of Thermal Stress:**  
  Look for smoke, heat distortion, steam, or unusual odors that may indicate evolving thermal runaway.
* **High-Voltage System Damage:**  
  Inspect battery enclosures, high-voltage cable runs (typically orange or bright colors), and undercarriage components for signs of compromise.
* **Fluid Leaks:**  
  Check for active leaks from the battery pack, coolant system, or drivetrain. Even small leaks may require additional containment measures.
* **Vehicle Indicators:**  
  Review dashboard lights, if accessible, for high-voltage system warnings, airbag deployment alerts, or other hazard notifications.
* **Structural Integrity:**  
  Ensure that vehicle deformation does not compromise tow attachments, stability, or create potential battery puncture risks during transit.

Any findings of concern must trigger a **secondary hazard assessment** and may require escalation to the Site Scene Coordinator or senior supervisor before transport proceeds.

**12.2 Monitoring During Transport**

Monitoring the EV during transport is essential due to the latent risks associated with damaged lithium-ion batteries.

Operators must:

* **Perform Periodic Checks:**  
  When safe to do so (e.g., during scheduled stops), visually inspect the vehicle for new signs of smoke, odors, leaks, or heat buildup.
* **Use Thermal Imaging:**  
  If equipped, conduct periodic thermal scans of the battery compartment and surrounding areas.
* **Document Observations:**  
  Maintain a transport log recording time-stamped observations, thermal readings (if applicable), and any changes in vehicle condition.
* **Route Planning:**  
  Minimize transport time and avoid routes that complicate emergency access (e.g., remote mountain roads without emergency pull-offs).

If any hazard develops during transport:

* **Stop Safely:**  
  Pull over in a secure location away from traffic and public spaces.
* **Isolate the Vehicle:**  
  Establish an exclusion zone around the recovery unit.
* **Contact Emergency Services:**  
  Report the incident to emergency responders and dispatch as per the Emergency Response Plan.
* **Do Not Attempt Further Recovery Until Safe:**  
  Await professional assistance for fire suppression, spill containment, or hazard control.

**12.3 Receiving Facility Notifications**

Before arriving at a storage or disposal facility:

* **Notify the Facility:**  
  Provide advance notice that the incoming vehicle is an EV and report any observed hazards (e.g., previous fire, thermal concerns, damaged battery systems).
* **Confirm Isolation Capability:**  
  Ensure the receiving site has an appropriate isolation area, fire monitoring protocols, and emergency response resources.
* **Share Risk Information:**  
  Transfer relevant risk information, including initial recovery assessments, thermal imaging results, incident logs, and any special handling instructions.

Facilities must be informed if the vehicle poses a risk of delayed thermal runaway or if it requires specialized storage equipment (such as battery containment pods).

**12.4 Vehicle Storage Post-Transport**

Once the EV is delivered:

* **Isolation Distance:**  
  Position the vehicle at least 15 meters (50 feet) from structures, other vehicles, and combustible materials.
* **Monitoring Requirements:**  
  Conduct ongoing inspections for at least 24–72 hours post-delivery for high-risk vehicles.
* **Containment Measures:**  
  Deploy fire-resistant covers, battery containers, concrete or sand berms as required for high-risk units.
* **Spill Management:**  
  If fluid leaks are detected post-delivery, immediately initiate spill containment procedures and notify environmental response teams if necessary.

**12.5 Documentation and Recordkeeping**

Following transport and delivery:

* Complete the **Post-Recovery and Transport Inspection Checklist**.
* Record any final thermal scan results and inspection findings.
* Submit transport logs, incident records, and delivery notifications to dispatch and supervisory staff within 24 hours.

All records must be retained in accordance with the company's Document Control procedures and made available for audits, incident investigations, or regulatory inspections.

**13. Environmental Protection and Cleanup**

Electric vehicle (EV) incidents present not only health and safety risks but also significant environmental risks, particularly from battery electrolyte leaks, fire suppression runoff, and chemical contamination of soil and water systems.

**[This company]** is committed to minimizing the environmental impact of EV recoveries through proactive spill containment, pollution prevention strategies, and full regulatory compliance.

**13.1 Commitment to Environmental Stewardship**

All employees, subcontractors, and site personnel involved in EV recovery, transport, and storage are responsible for:

* Preventing hazardous material releases into the environment.
* Containing and neutralizing spills promptly.
* Minimizing the use of environmentally harmful fire suppression agents.
* Reporting and responding to all environmental incidents immediately.

Environmental protection is integrated into every phase of EV handling — from scene assessment to final vehicle disposal.

**13.2 Environmental Hazards in EV Incidents**

Key environmental hazards associated with EVs include:

| **Hazard Type** | **Examples** | **Environmental Impact** |
| --- | --- | --- |
| **Chemical Spills** | Battery electrolyte leaks (e.g., lithium hexafluorophosphate, fluorine gases) | Soil contamination, groundwater pollution, toxic air emissions |
| **Fire Suppression Runoff** | Water runoff contaminated by burning plastics, metals, and chemicals | Storm-drain contamination, aquatic toxicity |
| **Coolant Leaks** | Glycol-based fluids escaping damaged thermal management systems | Soil degradation, surface water contamination |
| **Fuel or Oil Leaks** | From hybrid drivetrain components | Groundwater pollution, fire risk |

**14. Hazard Management**

Electric vehicle (EV) recoveries introduce distinct hazards not commonly encountered in traditional towing and recovery and recycling operations. Effective hazard management is essential to protecting workers, the public, and the environment from the dynamic and evolving risks associated with high-voltage battery systems, thermal runaway, chemical spills, and structural instability.

**[This company]** employs a systematic hazard management approach based on risk identification, control measures, continuous monitoring, and emergency preparedness.

**14.1 Hazard Management Framework**

Our hazard management process follows a four-step model:

1. **Hazard Identification:**  
   Early recognition of hazards through dispatch information, on-scene assessment, and dynamic monitoring.
2. **Risk Assessment:**  
   Evaluation of the likelihood and severity of harm associated with identified hazards.
3. **Risk Control Implementation:**  
   Deployment of control measures based on the hierarchy of controls (elimination, substitution, engineering controls, administrative controls, PPE).
4. **Monitoring and Review:**  
   Continuous hazard reassessment during recovery, transport, and storage phases to detect changes or emerging risks.

**14.2 Key Hazard Categories**

The following hazards are prioritized during EV recovery operations:

**14.2.1 Electrical Hazards**

* **Sources:** High-voltage battery systems, energized components, residual current post-collision.
* **Risks:** Arc flash, electric shock, electrocution.
* **Controls:**
  + Use insulated gloves and voltage detectors.
  + Follow OEM guidelines for battery shutdown procedures.
  + Treat all EVs as energized until properly disabled.

**14.2.2 Thermal Hazards**

* **Sources:** Battery overheating, thermal runaway propagation, residual hotspot ignition.
* **Risks:** Vehicle fires, explosions, secondary flashovers.
* **Controls:**
  + Maintain exclusion zones.
  + Deploy thermal imaging to monitor battery temperatures.
  + Use fire blankets and cooling water supplies.

**14.2.3 Chemical Hazards**

* **Sources:** Electrolyte leaks, coolant spills, combustion byproducts.
* **Risks:** Skin burns, respiratory injuries, environmental contamination.
* **Controls:**
  + Wear chemical-resistant PPE (gloves, aprons, respirators).
  + Contain spills promptly with appropriate neutralizing agents.
  + Prevent runoff into stormwater systems.

**14.2.4 Mechanical and Structural Hazards**

* **Sources:** Collapsed frames, broken suspension components, compromised battery enclosures.
* **Risks:** Crushing injuries, equipment failure during lifting or transport.
* **Controls:**
  + Conduct 360-degree scene assessments.
  + Use proper stabilization and rigging techniques.
  + Refuse to move vehicles exhibiting extreme instability without specialized support.

**14.2.5 Environmental Hazards**

* **Sources:** Chemical spills, fire suppression runoff, contaminated debris.
* **Risks:** Soil and water contamination, regulatory non-compliance, reputational harm.
* **Controls:**
  + Implement spill prevention and containment procedures.
  + Notify environmental authorities if releases occur.
  + Manage waste materials through certified hazardous waste handlers.

**14.3 Hazard Control Hierarchy**

When controlling EV-specific hazards, the following hierarchy of control strategies must be applied:

| **Control Level** | **Description** | **Examples** |
| --- | --- | --- |
| **Elimination** | Remove the hazard entirely | Disconnect high-voltage system per ERG |
| **Substitution** | Replace hazardous procedures with safer alternatives | Use battery containment pods instead of unsecured storage |
| **Engineering Controls** | Isolate people from hazards | Install barriers, use insulated recovery equipment |
| **Administrative Controls** | Change the way people work | Develop safe work procedures, mandatory briefings |
| **Personal Protective Equipment (PPE)** | Protect workers with equipment | Flame-resistant clothing, insulating gloves, respirators |

**15. Specialized Situations**

While many electric vehicle (EV) incidents involve typical road recoveries, certain specialized situations introduce additional hazards that require unique procedures and heightened education. [This company] recognizes that submersion incidents, ferry transport operations, and interactions with electric vehicle charging equipment each pose distinct challenges.

This section outlines the specialized protocols required for these complex scenarios.

**15.1 Recovery of Submerged Vehicles**

Submersion of an EV in water (fresh, salt, snow melt, or storm runoff) presents a severe risk of high-voltage electrical hazards, thermal runaway, and environmental contamination.

**Special considerations for submerged EVs:**

* **Treat as Energized:**  
  Assume the vehicle is electrically energized until verified otherwise by trained responders.
* **Do Not Enter Water:**  
  Operators must not attempt recovery operations while the vehicle remains submerged or partially submerged unless properly trained and equipped for water rescue and electrical hazards.
* **Scene Isolation:**  
  Establish an extended exclusion zone — minimum 50 meters (165 feet) — around the submerged vehicle to protect personnel from electrical hazards.
* **Stabilization Before Removal:**  
  Wait for emergency services to clear the scene or confirm that the area is safe before proceeding with vehicle extraction.
* **Slow Recovery:**  
  When authorized to recover, raise the vehicle slowly to minimize electrical arcing or violent gas venting that may occur due to battery compartment compromise.
* **Post-Recovery Risk:**  
  Submerged EVs are at elevated risk of delayed thermal runaway.  
  Once recovered, these vehicles must be isolated and monitored for at least 72 hours.
* **Environmental Protection:**  
  Be prepared for electrolyte and coolant releases; deploy spill containment measures immediately after recovery.

**15.2 Transport of EVs on Ferries or Watercraft**

Transporting damaged EVs via ferries introduces unique risks due to confined spaces, limited firefighting resources, and evacuation challenges.

**Special procedures for ferry transport:**

* **Advance Notification:**  
  Notify the ferry operator (if applicable) prior to arrival that a damaged or recovered EV is being transported.
* **Pre-Boarding Inspection:**  
  Ensure that a qualified person inspects the EV before boarding, focusing on structural damage, battery condition, and fire risk indicators.
* **Battery State of Charge (SOC) Reduction:**  
  Where possible, ensure the EV’s battery SOC is below 25% prior to boarding, as a lower charge reduces thermal runaway risks.
* **Isolation on Deck:**  
  Position the EV in an isolated section of the ferry (or as per instructions), away from other vehicles and structures, preferably in an open-air environment.
* **Fire Containment Equipment:**  
  Equip the EV with fire blankets, suppression agents, or battery pods if available, and ensure ferry crew is aware of containment options.
* **Emergency Preparedness:**  
  Brief ferry crew on the EV’s location, make/model, and potential hazards in the event of fire, including the need for cooling water access.

**15.3 Recovery from Electric Vehicle Supply Equipment (EVSE) Charging Stations**

Recovery operations involving EVs connected to charging stations require additional care to prevent electrical hazards.

**Procedures when recovering EVs from charging stations:**

* **Confirm Power Status:**  
  Before recovery, ensure that the EVSE (charging station) is de-energized and that the charging cable is no longer transmitting electricity.
* **Do Not Cut Charging Cables:**  
  Cutting a charging cable can result in arc flash, electrocution, or equipment damage. Always follow OEM emergency cable release procedures.
* **Emergency Cable Release:**  
  Many modern EVs feature manual cable release levers or buttons, typically located near the charging port. Follow manufacturer instructions for safe disconnection.
* **OEM ERG Consultation:**  
  Refer to the manufacturer’s Emergency Response Guide (ERG) for model-specific disconnection and recovery procedures.
* **Charging Station Hazards:**  
  Visually inspect the EVSE unit for damage (e.g., melting, arcing marks) before attempting to move the vehicle.  
  If damage is present, treat the entire EVSE structure as energized and contact the utility provider or emergency services for assistance.
* **Public Area Safety:**  
  Use cones, barriers, or vehicles to secure a safety perimeter around the charging station to prevent public access during recovery operations.

**15.4 Handling of Secondary Battery Devices**

In some cases, EVs may be transporting secondary energy storage devices, such as:

* Portable lithium-ion battery packs
* Emergency energy storage modules
* EV-to-grid energy systems

Special care must be taken to:

* Identify the presence of these devices during scene assessment.
* Treat secondary batteries with the same caution as primary battery systems.
* Monitor for heat buildup, leaks, or damage.
* Isolate or remove secondary devices if they pose a safety risk and if it can be done safely under OEM or emergency responder guidance.

**16. Resources and References**

* SAE J2990
* NFPA Emergency Field Guide
* ISO 17840 Standards
* Manufacturer ERGs
* WorkSafeBC Safety Regulations

**17. Appendices**

* Appendix A: Sample Scene Assessment Checklist
* Appendix B: PPE Matrix for Risk Levels
* Appendix C: Hazard Identification Chart
* Appendix D: Subcontractor Safety Compliance Checklist
* Appendix E: Emergency Scene Management Flowchart

**Appendix A: Sample Scene Assessment Checklist**

| **Step** | **Assessment Criteria** | **Details / Notes** | **Completed (✔/✖)** |
| --- | --- | --- | --- |
| 1 | Confirm vehicle type (EV, HEV, PHEV, ICE) | Refer to dispatch info and VIN / markings |  |
| 2 | Conduct 360° visual inspection | Walk around vehicle at a safe distance |  |
| 3 | Check for visible fire, smoke, or heat distortion | Use thermal imaging if available |  |
| 4 | Look for signs of battery damage or leaks | Swelling, bulging, exposed orange cables |  |
| 5 | Smell for electrolyte leaks | Ether-like or “sweet chemical” odor |  |
| 6 | Listen for unusual sounds | Hissing, popping, or electrical noises |  |
| 7 | Confirm vehicle is immobilized and stable | Check terrain slope, blocking, and stability |  |
| 8 | Assess proximity to hazards (water, ditches, traffic) | Note any additional scene hazards |  |
| 9 | Identify presence of keys/fobs | Remove from proximity (5m/16ft) if found |  |
| 10 | Identify Incident Commander on scene | Coordinate with fire/police before proceeding |  |
| 11 | Establish a safety perimeter | Minimum 15m (50ft); increase for smoke/fire |  |
| 12 | Use appropriate PPE | Based on Basic, Intermediate, or High Risk |  |
| 13 | Communicate assessment to dispatch | Include initial findings and risk tier |  |
| 14 | Determine Go / No-Go for recovery | Defer if hazards exceed safe thresholds |  |
| 15 | Document findings | Take photos, complete checklist, note concerns |  |

**Appendix B: PPE Matrix for Risk Levels**

| **Risk Level** | **PPE Requirements** | **Purpose** |
| --- | --- | --- |
| **Basic Risk** (e.g., minor mechanical failure, no visible damage, no fluid leaks) | - High-visibility vest - Safety footwear (CSA Grade 1) - Work gloves (general purpose) - Eye protection (safety glasses or goggles) | Protection from general site hazards (traffic, debris, minor mechanical risks) |
| **Intermediate Risk** (e.g., minor collision damage near battery area, coolant leaks, dashboard warnings) | - All Basic PPE, plus: - Flame-resistant (FR) rated clothing - Chemical-resistant gloves (nitrile or neoprene) - Respirator (half-mask with organic vapor/acid gas cartridges, if fumes suspected) - Electrical insulating gloves (Class 0 minimum, tested) - Hard hat with integrated face shield (where overhead or arc risks exist) | Enhanced protection from electrical hazards, thermal threats, and chemical exposure |
| **High Risk** (e.g., fire, smoke, submerged vehicles, battery damage or exposure) | - All Intermediate PPE, plus: - Full-face respirator or SCBA (where available and trained) - Heat-resistant gloves (fire-rated) - Arc-rated full-body suit or layered FR clothing - Insulated boots (dielectric rated) - Chemical splash suit (if electrolyte leak confirmed) - Intrinsically safe communication equipment (radios/phones) | Maximum protection from severe electrical, chemical, fire, and environmental hazards |

**Appendix C: Hazard Identification Chart**

| **Hazard Type** | **Key Indicators / Examples** | **Potential Risks** | **Recommended Controls** |
| --- | --- | --- | --- |
| **Electrical** | - Exposed orange high-voltage cables - Arcing or sparking - Dashboard HV system warning lights - Damaged battery pack or inverter housing | - Electric shock or electrocution - Arc flash injuries - Fatal contact with energized systems | - Treat all EVs as energized until proven otherwise - Use voltage-rated insulating gloves and tools - Follow OEM ERG for disabling procedures - Keep keys/fobs 5+ meters away |
| **Thermal** | - Smoke, steam, or bubbling fluids - Heat felt near battery enclosure - Thermal imaging hotspot readings - Recent vehicle fire or signs of charring | - Thermal runaway - Battery fire or explosion - Burns or ignition of nearby materials | - Use thermal imaging for early detection - Apply cooling water if approved - Use lithium-ion-specific extinguishers or fire blankets - Maintain 15m (50ft) exclusion zone |
| **Chemical** | - Fluid pooling under battery or vehicle - Sweet/ether-like odor (electrolyte) - Corroded metal surfaces - Leaking coolant or battery venting | - Skin/eye burns - Toxic inhalation - Environmental contamination | - Wear chemical-resistant gloves and eye protection - Use respirators or SCBA where gases are suspected - Deploy spill containment and neutralizers (e.g., boric acid) - Isolate and notify environmental response if needed |
| **Mechanical/Structural** | - Crushed body panels or undercarriage - Twisted frames, jammed hoods, damaged suspension - Debris under vehicle or vehicle teetering | - Collapse or shift during towing - Risk of crush injury - Additional stress on battery pack | - Stabilize vehicle before movement - Use proper lifting/rigging equipment - Avoid working under unstable vehicles |
| **Environmental** | - Fluids near storm drains or waterways - Runoff from suppression or coolant leaks - Spill or smoke plume migration | - Soil/water contamination - Wildlife exposure - Regulatory violations | - Use spill kits and berms to prevent runoff - Monitor and contain fire suppression runoff - Report environmental releases as required |

**Appendix D: Subcontractor Safety Compliance Checklist**

| **Requirement** | **Details / Verification Points** | **Completed (✔/✖)** | **Notes** |
| --- | --- | --- | --- |
| **WorkSafeBC Clearance** | Valid clearance letter confirming active registration and compliance |  |  |
| **Insurance Coverage** | Proof of general liability, automobile, and environmental liability insurance |  |  |
| **EV Recovery Training Certification** | Evidence of successful EV-specific hazard and recovery training |  |  |
| **PPE Compliance** | Verification that required PPE (FR clothing, insulating gloves, respirators) is available and used |  |  |
| **Spill Response Preparedness** | Availability of spill containment kits and basic environmental protection materials |  |  |
| **Specialized Equipment** | Access to non-conductive towing straps, voltage detectors, thermal imaging (if applicable) |  |  |
| **Subcontractor Agreement Signed** | Formal agreement acknowledging EOHS requirements and incident reporting obligations |  |  |
| **Participation in Site Briefings** | Attendance at pre-recovery hazard assessments and briefings |  |  |
| **Incident Reporting Compliance** | Commitment to report all incidents, near misses, and environmental releases immediately |  |  |
| **Field Inspection Results** | Spot-checks for compliance with safe work procedures and environmental protocols |  |  |
| **Corrective Action Records** | Documentation of any deficiencies found and rectified within specified timelines |  |  |

**Appendix E: Emergency Scene Management Flowchart**

**▶ Arrival at Scene**

**↓**

**▶ Conduct 360° Scene Assessment**

**↓**

**▶ Identify Any Immediate Hazards?**

**↙ ↘**

**Yes No**

**↓ ↓**

**▶ Initiate Emergency Response ▶ Proceed with Recovery Under Standard Safe Work Procedures**

**↓**

**▶ Activate Site Emergency Plan**

**↓**

**▶ Establish Exclusion Zone**

**(Minimum 15m / 50ft or greater)**

**↓**

**▶ Notify Dispatch and Emergency Services**

**↓**

**▶ Communicate with Incident Commander (if on scene)**

**↓**

**▶ Deploy Initial Control Measures**

**(Fire suppression, spill containment — if safe to do so)**

**↓**

**▶ Evacuate Non-Essential Personnel**

**↓**

**▶ Await Emergency Services Control of Scene**

**↓**

**▶ Post-Incident:**

**- Complete Incident Report**

**- Document Observations**

**- Conduct Debrief and Review**